

Systems Integration and Engineering Branch (Code 581)

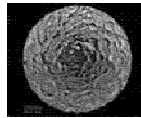
Branch Head: Henry Murray

Lead Mission Director/Associate Branch Head: Vacant

The Systems Integration and Engineering (SIE) Branch provides end-to-end engineering of ISD mission systems development activities, including software development and flight operations. The SIE Branch consists of 39 engineers providing support to several projects such as HST, JWST, ESMO, and SSMO. A few core capabilities of the SIE Branch are:

- Operational Concepts and Architecture Definition
- End-to-End Mission Data Systems Engineering
- Implementation Management
- Ground System Implementation Management
- Technology Assessment and Analysis
- Requirements Analysis and Tracking
- Data Systems Development and Management
- Flight Operations Engineering and Management
- Software Engineering Consultation and Process Improvement

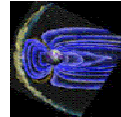
The SIE Branch is instrumental in supporting GSFC's pursuit of competitively awarded missions and instruments. Ground system experts, flight software experts and proposal managers are needed to support future proposal opportunities. Below are a few proposals Branch personnel have supported and future proposal opportunities.



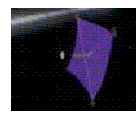
**Robotic Lunar
Exploration Missions**
Launch 2008 & 2011



Mars Scouts
Launch 2011



**Radiation Belt
Storm Probe
Instruments**
Launch 2011



**ST-8 Technology
Missions**
Launch 2010



MIDEK
FY 2007
Launch 2012

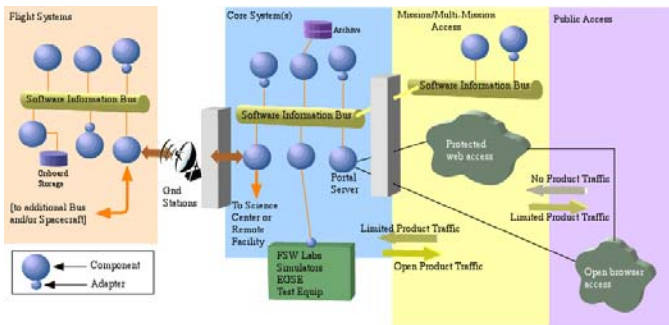


**Earth Science System
Pathfinder FY 2008**
Launch ~2013

Current Branch Activities

GSFC Mission Services Evolution Center (GMSEC)

The Branch is responsible for the management of the GMSEC Project.



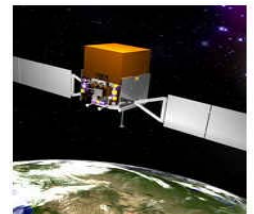
The GMSEC architecture is a comprehensive flight and ground data systems framework that supports the full mission lifecycle. The architecture enables quick and easy integration of functional components that are selected to meet the unique needs of a particular mission.

Systems Engineering/Operations Engineering/Ground System Management

A few major roles performed by Branch personnel on flight projects are Ground Systems Manager, Ground Systems Engineer, Implementation Manager, Mission Operations and Ground Systems Manager, and Mission Director.



Steve Coyle/581
ST-5 Mission Operations &



Ken Lehtonen/581
GLAST Mission Operations &